

3. CONTRIBUTIONS FROM THE DEPARTMENT OF BIOLOGY
OF THE UNIVERSITY OF WESTERN AUSTRALIA.

No. 11.

**A new species of Termite from the Eastern Goldfields Region of
Western Australia.**

(With one Plate III.)

By

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During the last year an investigation has been made by the author under the direction of Mr. S. L. Kessell, Conservator of Forests of Western Australia, into the relative degree of durability of various timbers, in different localities, when exposed to the attacks of termites. All of these timbers with the exception of Oregon Pine were Australian.

The scope of the investigation has included the determination of the more destructive species of termites in the different localities where the sets of timber were located, and a large number of species has been collected.

In particular some especially interesting material was secured while on a visit to Kalgoorlie, towards the end of March this year, when through the kindness of Mr. G. Brockway, Divisional Forest Officer, I was enabled to collect over a very wide stretch of country, extending Eastwards beyond Karonie, on the Trans Australian Railway, to Caluli, south west of Coolgardie.

The species with which this communication deals was taken from a spot about eight miles to the west of Kalgoorlie, in a nest inhabited by no fewer than five distinct termite species.

This particular nest stood a foot above ground level, was irregular in shape and about two feet across, with the bottom within twenty inches of the surrounding ground level, and, like many others in the immediate vicinity, gave the impression of being a mound of debris, such as might result from the incomplete burning out of an old stump, and this suggestion was at first supported by the breaking open of the mound which was composed of a quite hard material. Only when the mass had been penetrated to a depth of nearly a foot were there signs of the presence of termites.

The main mass of the termitarium was occupied by that widely distributed species, *Coptotermes lacteus*, and from the very distinctive character of the lining of the greater portion of the nest, I am convinced that this termite was the original builder and occupant. On one side of the nest, however, were chambers distinguished by a different lining material, and in this were found the other four species which were representative of the genera *Leucotermes*, *Hamitermes*, *Microtermes* and a genus new to Western Australia, *Ahamitermes*.

This latter was established by Mjöberg in 1920 from a single specimen, a soldier, likewise taken from a nest of *Coptotermes lacteus*, in North Queensland.

I was so fortunate as to obtain imagines, soldiers and workers, and am thus in a position to amplify Mjöberg's diagnosis of the genus which was, of necessity, quite incomplete.

Later, a second colony was found at Karramindie, twenty miles south of Kalgoorlie, this containing only soldiers and workers.

The new species is named *Ahamitermes hillii*, in compliment to Mr. G. F. Hill, Chief Assistant Entomologist to the Council of Scientific and Industrial Research, who has done so much work on Australasian termites, and to whom I am greatly indebted for valuable advice and criticism from time to time, as well as for generous help with both named material and literature.

I desire, also, to take this opportunity of thanking Mr. J. Clark of the National Museum of Melbourne, for similar assistance, his large collection of named material having greatly simplified my task of identifying Western Australian termites.

AHAMITERMES. Mjöberg.

IMAGO.—Head fairly large, rounded behind, subcircular or slightly tapering forwardly. Eyes prominent and moderately large. Clypeus prominent. Antennae 15-jointed. Pronotum slightly wider than head, about two-thirds as long as wide.

SOLDIER.—Mjöberg's description is as follows :—"Body small, of *Hamitermes* type ; head small, longer than broad, rounded behind ; clypeus small ; labrum long and broad, tapering to the tip, rounded ; jaws short and stout, standing apart from each other, without median tooth ; antennae very short, 12-jointed ; prothorax broad, only very slightly ridged in front. With this description my specimen agrees entirely, except that the number of segments in the antennae must be stated as being from 12-15.

Ahamitermes hillii. n sp.

IMAGO.—Body dark brown above, lighter below ; head and prothorax very dark ; antennae and maxillary palps slightly lighter ; ocelli pale ochreous. Abdominal tergites dark brown, darker along posterior borders ; ventral surface of abdomen dark ochreous with darker sternites, giving a banded appearance.

Head subtriangular, slightly wider than long, rounded behind, moderately setose ; eyes large, subcircular, prominent ; ocelli circular, approximately one-third of smaller diameter of eyes, situated just above eyes ; fontanelle oval, pointed anteriorly, situated mid-way between the eyes. Antennae 15-jointed, arising from circular cleft just in front of and close to the eyes ; 1st joint sub-rectangular, two-thirds as wide as long ; 2nd nearly square, about three-fifths as wide as first ; 3rd smallest, shorter and narrower than second, wider than long ; 4th-6th moniliform, and gradually increasing in size ; 4th wider than, and about as long as, second ; segments 3, 4, 5 and 6 more or less coalesced ; 7th-14th sub-equal, longer than 6th, with gradually increasing tendency to become pyriform ; 15th longer than

preceding one, as long as first, about as wide as second, tapering; each provided with one or two rings of fairly long setae and fairly densely clothed with shorter ones. Clypeus large, convex, divided by median suture; labrum broad, rounded. Prothorax large, wider than head, not quite as long, greatest width at centre of anterior half, anterior margin concave, not raised in front; sides rounded, tapering posteriorly to narrow, slightly emarginate posterior margin; surface sparsely setose; margin thickly fringed with setae. Abdomen wide and depressed, gradually widening from first to eighth segment, approximately equal in length to head and thorax combined; bluntly rounded posteriorly, moderately setose.

Measurements (in mm.)—

Length, with wings,	11.8	
without	5.95	
Abdomen, long	3.1	
Head, long	1.33	wide, 1.5
Pronotum, long	0.88	wide, 1.16
Antennae	1.54	
Eyes	2.7 x 2.4	Ocellus, 0.9
Fore wing, long	8.96	wide, 2.7
Hind wing, long	8.45	wide, 2.8

SOLDIER.—Head, pronotum, antennae and legs, straw-coloured; jaws ferruginous; abdomen pale ochreous with dark intestinal contents showing through. Head subrectangular, longer than wide, broadest posteriorly, tapering slightly towards antennal clefts, broadly rounded behind, dorsal and ventral surfaces almost parallel, sparsely setose above. Antennae nearly as long as head, somewhat longer than jaws; latter broad at base, strong, slightly arcuate at pointed tips; teeth absent, left jaw with prominence at base. Labrum nearly half length of jaws, tapering forwardly and very slightly emarginate in front. Clypeus small, with bunch of setae. Gula very broad, two-fifths width of head, lateral edges straight; antennae 13-jointed; 1st large, nearly twice as long as broad; 2nd slightly longer than broad, length approximately two-thirds width of first; 3rd smallest, one-third length of first, two-thirds width of second; 4th slightly wider, and half as long again as third; 6th-12th very gradually increasing in length; 13th longer than preceding one, tapering to obtusely pointed end. Pronotum narrower than head, anterior margin slightly raised up; very few setae, chiefly marginal.

Measurements—

Head, with mandibles, long,	2.03
to base of labrum, long,	1.3
wide (greatest width),	0.93
at antennal clefts,	0.82
Mandibles, long, left,	0.79
right,	0.77
Antenna, long,	1.07
Pronotum, long,	0.38
wide,	0.73

WORKER.—Head, thorax and legs pale straw coloured, abdomen nearly transparent with contents showing through, as a greyish mass, as in soldiers. Head longer than broad, rounded behind, bearing a fair number of symmetrically arranged setae. Antennae 13-jointed; 1st large, about half as long again as wide; 2nd about as long as width of first; 3rd smallest, approximately square, about three-quarters width of second; 4th about same size as second; segments 1-4 subrectangular, 5-13 pyriform, not showing any marked change in size with the exception of the last which is narrower and tapers to an obtuse point.

Clypeus large; labrum broad, truncate in front.

Mandibles identical with those of Imago.

Pronotum ridged anteriorly, margin entire and fringed with setae.

Abdomen elongated, gradually tapering towards posterior end, sparsely setose.

Measurements—

Head, long,	1.25	wide,	0.8
Pronotum, long,	0.45	wide,	0.67

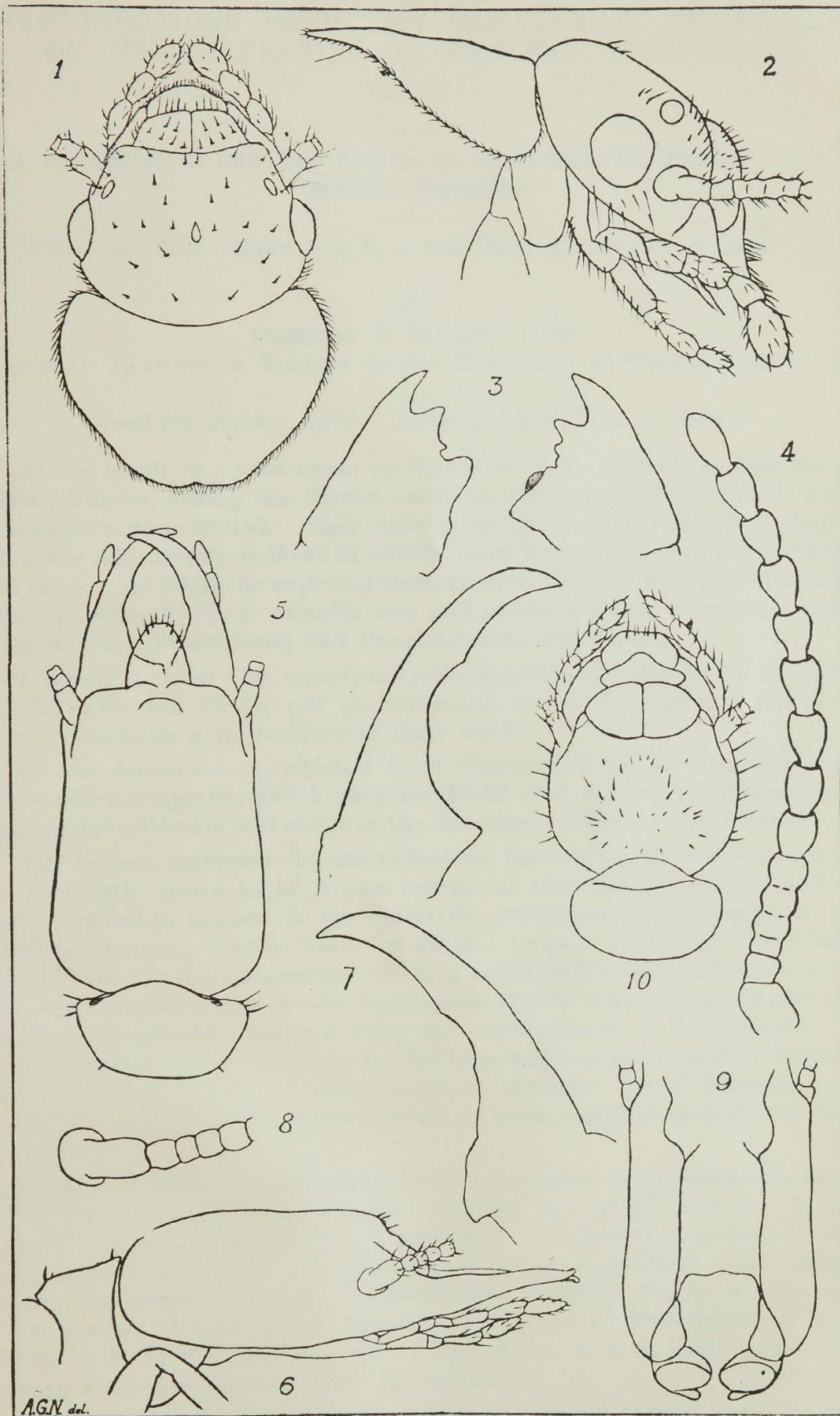
Locality.—Kalgoorlie and Karramindie.

REFERENCE TO LITERATURE.

Mjoberg, E.: Results of Dr. E. Mjoberg's Swedish Scientific Expedition to Australia, 1910-1913.

Arkiv för Zoologi. Band 12. No. 15. 1920.

PLATE III.



AGN. del.

Ahamitermes hilli, sp. nov.

EXPLANATION OF PLATE III.

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|--------------------------------|---------------------------------|
| 1. Imago, head, dorsal view. | 6. Soldier, head, lateral view. |
| 2. " " lateral view. | 7. " mandibles. |
| 3. " mandibles. | 8. " antenna, proximal portion. |
| 4. " antenna. | 9. " gula. |
| 5. Soldier, head, dorsal view. | 10. Worker, head, dorsal view. |